



***Lucilia calviceps* Bezzi, new record from India (Diptera: Calliphoridae), with a revised key to Indian species**

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Abstract

Lucilia calviceps Bezzi is newly recorded from India, a revised key is provided with all the Indian species.

Keywords: *Lucilia calviceps*, New record, India, Revised key.

Introduction

Flies of genus *Lucilia* are generally called the green bottles. According to Kurahashi (1966) the genus *Lucilia* has been divided into three groups based on its evolutionary trends; i.e. *richardsi* group, *cluvia* group and *fumicosta* group. Out of these, the *richardsi* group is the most primitive (with maximum plesiomorph characters) and the *fumicosta* group being the most advanced one. The Indian fauna comprises of all the three groups but is dominated by Oriental elements (62.5%) followed by Palaearctic (25%) and Neotropical Nearctic (12.5%).

In Fauna of British India Diptera vi (Calliphoridae) by Senior White *et. al.*, (1940) genus *Lucilia* was represented by six species from India. At present this genus is represented by 8 species, *Lucilia bazini* seguy (Nandi, 2004) and *Lucilia calviceps* Bezzi being the new records from this region. The previous key (Senior White *et. al.*, 1940) is modified in order to incorporate the newly recorded species from India.

Key to the Indian species of *Lucilia*

1. Basicostal Scale Yellow, post sutural acrostichial 3 ----- (2)
-----Basicostal Scale brown or black; post sutural acrostichial 2 ----- (3)

2. Abdomen arched in profile; sternites with tuft of long hairs; hypopygium prominent; parafrontalia bare or almost bare except for frontals and fronts-orbitals in female -----
----- *Lucilia cuprina* (Wiedemann)
- Abdomen not arched in profile, sternites without tuft of long hairs, hypopygium inconspicuous; parafrontalia in female with short decumbent bristles among frontals and parafrontals -----
----- *Lucilia sericata* (Meigen)
3. Alar squama always white or creamish in colour (never infuscated); lower squama may be white or infuscated ----- (4)
- Alar squama and thoracic squama infuscated ----- (5)
4. Alar squama creamish with a tuft of yellowish white hairs at inner lower margin; thoracic squama pale, brownish on disc -----
----- *Lucilia bazini* seguy
- Alar and thoracic squama predominantly white ----- *Lucilia illustris* (Meigen)

-----Alar squama white; lower infuscated *Lucilia*
-----*ampullacea* Villeneuve

5. Anterior pair of post sutural acrostichial more advanced than 2nd pair of Post sutural dorsocentral- - - - - *Lucilia porphyryna* (Walker)

-----Anterior pair of Post sutural acrostichial on the level or slightly posterior than 2nd pair of post sutural dorsocentral - - - - - (6)

6. Male frons broader than the distance between two posterior ocelli; female parafacialia broader than the width of 3rd antennal segment - - - - - *Lucilia papuensis* Macquart

-----Male frons smaller than the distance between two posterior ocelli; parafacialia as broad as or narrower than the width of 3rd antennal segment in female - - - - - (7)

7. Eyes in male separated at narrowest point by less than the width of anterior ocellus; parafacialia yellow – grey dusted, narrower than the width of 3rd antennal segment in female. - - - - - *Lucilia hainanensis* Fan

-----Eyes in male separated at narrowest point more than the width of anterior ocellus; parafacialia silver-grey dusted; as broad as width of 3rd antennal segment in female. - - - - - *Lucilia calviceps* Bezzi

***Lucilia calviceps* Bezzi**

Lucilia calviceps Bezzi, 1927:238. Type localities: Espiritu Santo and Epil Island, New Hebrides [Vanuatu] Length: 8.0-9.0 mm

Material Examined

India: 1 female, Gugga, UNA, Himachal Pradesh, 600.mts, 6.X.2009; 3 males Dharampur, Himachal Pradesh, 450mts, 14.X.2009; 1 male, Bari, Himachal Pradesh, 450mts, 15.x.2009; 1 male, Kotla, Himachal Pradesh, 470mts, 7.x.2009; 1 female, Kotla, Himachal Pradesh, 470mts, 7.x.09.

Distribution

India (Himachal Pradesh), Philippines (Luzon), Malaysia (Malaya, Borneo), Papua New Guinea, (New Guinea, New Britain, New Ireland, Bougainville I.), Vanuatu Loyalty Islands and New Caledonia.

References

- Kurahashi, H. 1998. *Lucilia bazini* Seguy, newly recorded from Peninsular Malaysia (Diptera: Calliphoridae). Medical Entomology and Zoology, 49(3) : 231-232.
- Kurahashi, H. 2001. The blowflies recorded from Srilanka, with descriptions of two new species (Diptera: Calliphoridae). Japanese Journal of Systematic Entomology, 7(2): 241-254.
- Kurahashi, H. and Afzal, M. 2002. The blow flies recorded from Pakistan with the description of one new species (Diptera : Calliphoridae). Medical Entomology & Zoology, 53(2) : 231-230
- Kurahashi, H. and Thapa, V.K. 1994. Notes on Nepalese Calliphorid flies (Insecta: Diptera). Japanese Journal of Sanitary Zoology, 45: 179-252.
- Nandi, B.C. 2004. Checklist of Calliphoridae (Diptera) of India. Record of Zoological Survey of India, Occassional Paper No. 231: 1-47.
- Senior White, R., Aubertin, D. and Smart, J.1940. The Fauna of British India, including remainder of the Oriental region. Diptera vi, Family Calliphoridae. London: Taylor and Francis.